

Notice of Allowability

Application No.

10/038,681

Examiner

Alan Diamond

Applicant(s)

TANAKA, SATOSHI

Art Unit

1753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed October 24, 2003.
2. ☒ The allowed claim(s) is/are 1, 3, 4 and 6-16.
3. ☒ The drawings filed on 08 January 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☐ including changes required by the proposed drawing correction filed _____, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892) | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6 <input checked="" type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>11142003</u> |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____ | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other |

Alan Diamond
Primary Examiner
Art Unit: 1753

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Joseph Presta on November 12 and 14, 2003.

The application has been amended as follows:

In The Claims

In claim 6, at line 2, after "for" please insert --said--.

In claim 7, at line 1, please delete "for solar cells," and insert in its place --connecting electrodes of solar cells,--

In claim 7, at line 3, please delete "electrode is" and insert in its place --electrodes are--.

In claim 8, at line 5, please delete "electrode is" and insert in its place --electrodes are--.

In claim 9, at line 2, please delete "cell" and insert in its place --cells--.

In claim 9, at line 2, please delete "interconnector" and insert in its place --interconnectors--.

In claim 10, at line 2, please delete "cell" and insert in its place --cells--.

In claim 10, at line 3, please delete "interconnector" and insert in its place --interconnectors--.

In claim 13, at line 2, please delete "cell" and insert in its place --cells--.

In claim 13, at line 2, please delete "interconnector" and insert in its place --interconnectors--.

2. The following is an examiner's statement of reasons for allowance: The solar cells of claims 1 and 6, and the solar cell string of claim 8, require that the electrode(s) is/are coated with lead-free solder; and the electrode(s) is/are formed of fired metal paste; and wherein said metal paste contains powdery silver, powdery glass, an organic vehicle, an organic solvent, phosphorous oxide, and halide. Claim 7 requires an interconnector connecting electrodes of solar cells, comprising a metal core coated with a lead-free solder, wherein the electrodes are formed of said fired metal paste. Furthermore, claim 16 is a method of forming a solar cell having an electrode, comprising the steps of forming the electrode, cleaning the electrode with flux including a resin, a solvent, and a stabilizer for said resin, and coating the cleaned electrode with lead-free solder. The prior art does not teach or suggest the requirements of instant claims 1, 6-8, and 16.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Diamond whose telephone number is 703-308-

Application/Control Number: 10/038,681

Page 4

Art Unit: 1753

0840. The examiner can normally be reached on Monday through Friday, 5:30 a.m. to 2:00 p.m. ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 703-308-3322. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

A handwritten signature in cursive script that reads "Alan Diamond".

Alan Diamond
Primary Examiner
Art Unit 1753

Alan Diamond
November 14, 2003